

## EVALUATING THE IMPACT OF THE DETERMINANTS OF E-COMMERCE CUSTOMER TRUST AND SATISFACTION

AHMADULLAH NOORI

*Research Scholar in Management Institution, Limkokwing University of Creative Technology, Malaysia*

### ABSTRACT

*Online shopping has become one of the commonly and broadly used channels in the Internet fraternity for convenient shopping. Many websites are opening daily to meet the ever-rising demands of comfort and convenience shoppers. Online shopping is a convenient way of shopping for various items from various locations and a faster process. The digital economy is driven by information technology introduced high-speed Internet connection as a convenient platform for online purchases and firms to interact. The growth of the Internet is viewed as the driving force to the increase in the use of e-commerce services globally in general and in Malaysia in particular. E-commerce websites have contributed to the wide access of products and services by local users that are also moving internationally. E-commerce is one of the important strategies in business today since it has raised the level of efficiency in organizations as well as contributed to countries' economies through the service sector.*

*Customer satisfaction is the result of comparing the expectations and experience. Customer satisfaction involves the process through which a consumer is pleased when the delivery meets or exceeds their expectations. Customer trust is understood as the beliefs held by an online consumer regarding specific attributes of the e-supplier and the possible behaviors of the e-supplier in the future. The user interface is the tangible aspect of e-commerce websites which depicts the interaction channel between customers and electronic service providers. User interface quality includes the website design that consists of organization and searchability and the ease of navigation.*

*Information quality is viewed as the customer's perception of the quality of product information that is available on e-commerce websites. Information quality depicts the relevance, usefulness of the product information available in e-commerce sites.*

*Customers are always concerned about the security of e-commerce websites that reflects the reliability of the payment method, data storage, and data transmission. Customers are always concerned with their private information being accessed by third parties and they believe that their information will not be viewed and used by other parties. Privacy is perceived as the disclosure and storage of private information by third parties.*

*Customer service is defined by the quality of a company representatives' knowledge to respond to customer queries and questions. The company's representatives are expected to explicitly describe the costs associated with different products and provide adequate support to clients that navigate through the website.*

**KEYWORDS:** E-Commerce, Satisfaction, Trust, Quality, User-Interface, Privacy, Security & Service

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### INTRODUCTION

Online shopping has become one of the commonly and broadly used channels in the Internet fraternity for convenient shopping. Many websites are opening daily to meet the ever-rising demands of comfort and convenience shoppers (Bin Dost, Illyas & Rehman, 2015). Online shopping is a convenient way of shopping for various items from various locations and a faster process. The digital economy is driven by information technology introduced high-speed Internet connection as a convenient platform for online purchases and firms to interact (Bin Dost et al., 2013). The growth of the Internet is viewed as the driving force to the increase in the use of e-commerce

services globally in general and in Malaysia in particular. E-commerce websites have contributed to the wide access of products and services by local users that are also moving internationally (Sobihah, Mohamad, Mat Ali, & Wan Ismail, 2015). E-commerce is one of the important strategies in business today since it has raised the level of efficiency in organizations as well as contributed to countries' economies through the service sector.

According to the Internet World Stats, there are over 1.5 billion Internet users worldwide where the number is expected to rise with time. Researchers have indicated that all Internet users are potential customers to companies in e-commerce (Nguyen, 2014). According to Americo and Veronico (2018), e-commerce is growing globally at an average rate of 20 percent yearly while physical shops are struggling. The total share of e-commerce retail trade in 2016 was modest at 8.5% worldwide. E-commerce has contributed greatly to the most countries' economies. In the United States, which is the world's biggest consumer market, e-commerce amounted to 10% growth rate while Middle East countries growth rate was less significant amounting to less than 5% (Americo & Veronico, 2018). With the recent development of technology and the onset of the millennial, there is a growing number of buying products online. The increase in mobile phones in both developed and developing countries is likely to bring more consumers online. One of the benefits of e-commerce is to increase employment opportunities (Americo & Veronico, 2018; Khan, 2016). Moreover, e-commerce websites are accessible 24 hours and 365 days, which are easy to access with all related information, shopping without anxiety, time and space limits, and comparing of prices from different e-stores with no geographical distances (Irantaj & Huseynov, 2018).

Businesses not only exploit the benefits of e-commerce websites but also face certain challenges among them being maintaining customer trust and satisfaction with cultural diversity, various viewpoints, demands and needs (Irantaj & Huseynov, 2018). In addition, many online retailers are facing challenges of exploiting maximum benefits from e-commerce due to hurdles such as trust and loyalty where risks and uncertainties may rise (Hidayat, Saifullah, & Ishak, 2016). Eid (2011) revealed that at the global level, customer loyalty is generally very strongly associated with the long-term growth and profitability of a firm. A small increase in customer retention rates significantly raises the profit of a firm. Loyal customers visit their esteemed e-commerce sites twice as often as non-loyal customers whereby also loyal customers spend more money (Eid, 2011). Analysts indicated that 35 to 40% of e-commerce website sales revenue is contributed by repeat visitors (Eid, 2011). It is not surprising that customers' loyalty has been a key factor to consider among e-commerce firms since the costs associated with acquiring new online customers are high and that the process could also be unprofitable. As a result, attracting and retaining customer attention for online shopping is not an easy task

### **Problem Statement**

Despite the accrued benefits of e-commerce, companies have also faced certain challenges while using e-commerce websites. Companies have realized that ensuring customer satisfaction and building customer's trust of e-commerce operations is not an easy task which, on the other hand, is an important task for the long-term growth of businesses (Nguyen, 2014). Previous research depicted that firms using e-commerce experienced difficulty in maintaining customer satisfaction and trust following the rapid growth of Business to Commerce e-commerce applications. E-commerce firms are certainly experiencing greater competitions due to the fact that on the Internet, a competitor is only a click away (Eid 2011). In addition, consumers trust and loyalty of e-commerce use are being eroded by the rise of fraud and scam issues due to inadequate security and privacy as well as the uncertainty of quality product delivery (Hidayat et al.,

2016; Khan, 2016). Therefore, without a strong incentive for online shoppers to visit a website and without an anchor to motivate customers, e-commerce firms may struggle in retaining consumers in an increasingly competitive market.

## **RESEARCH OBJECTIVE**

The study's primary objective is to evaluate the determinants and their impact on e-commerce trust and satisfaction.

### **Research Questions**

- Does website content quality determine e-commerce consumer trust and satisfaction?
- Does user-interface quality influence e-commerce trust and satisfaction?
- Do security and privacy have an effect on e-commerce consumer trust and satisfaction?
- Does customer service impact e-commerce consumer trust and satisfaction?

## **LITERATURE REVIEW**

The section presents a detailed review of the literature regarding e-commerce, trust and satisfaction and determinants of customer trust and satisfaction. The literature is outlined to discuss the e-commerce concept, discuss the concept of customer trust and satisfaction; discuss the determinants, and the impact of e-commerce customer trust and satisfaction. The last section discusses the trends in e-commerce.

### **E-commerce**

E-commerce is the electronic networks with the objective to simplify and fasten all phases of business processes that range from the production of goods to their sale and delivery (Hidayat et al., 2016). Irantaj and Huseynov (2018) is the process of carrying out commercial, governmental, and personal activities with the aid of electronic channels and telecommunications networks that includes a wide range of processes involving searching and sharing information and data exchange between two or more parties. Commercial activities are the processes that include buying and selling of products and services as well as banking transactions via the Internet that maintains customer relationship without face to face meeting. Khan (2016) also viewed e-commerce as the process of buying and selling goods via the Internet, compare prices, or analyze the latest products on offer before making a purchase online or at a traditional store.

There are various types of e-commerce classified as business to business (B2B), business to customer (B2C), consumer to consumer (C2C), consumer to business (C2B) and intra-business/intra-organizational (Hidayat et al., 2016). The study's primary focus was the B2C and C2C e-commerce where the end customers are linked directly to the electronic media or website. E-commerce is significant as it enables buyers to have a clear advantage of the access to the global market as well as get awareness about substitute products (Khan, 2016). E-commerce websites are considered a revolution in the business market where customers can compare the services of various e-commerce sites effectively. E-commerce and online shopping are used concurrently to illustrate the combination of electronic data change, electronic mail, and Internet applications to exchange information (Ozdemir & Cam, 2016).

E-commerce has significant benefits as it has reduced costs associated with accessing products from various geographical locations globally. The e-commerce platforms encourage non-cash payment as it enables the use of electronic fund transfer, debit and credit cards and various methods of electronic transfer (Vadwala & Vadwala, 2017). E-commerce

systems are widely used by consumers since they are available 24 hours 7 days a week and provide excellent support services to consumers. E-commerce is used by marketers since they attract and target a great number of customers who majorly use the Internet. E-commerce systems are used to advertise a wide range of products and also encourage better marketing management (Vadwala & Vadwala, 2017). Electronic commerce platforms are also encouraging improvement in communication by providing ways for faster, efficient, and reliable communication with customers. E-commerce platforms have enabled organizations to locate more customers, suppliers, and suitable business partners globally. They help in building the brand image of a company simplify business processes and reduce costs through digitalizing information (Vadwala & Vadwala, 2017). The paper-based process has been eliminated through e-commerce systems and supports pull type supply management where customers request are processed in within less period.

### **Customer Satisfaction**

According to Vasic, Kilibarda, and Kaurin (2019), customer satisfaction is the result of comparing the expectations and experience. Customer satisfaction involves the process through which a consumer is pleased when the delivery meets or exceeds their expectations. Hidayat et al. (2016) Defined customer satisfaction as the analysis of the perceived incompatibility between prior expectations and the product's actual performance as perceived following its consumption. Satisfaction includes the psychological state arising from the condition when consumer's emotion surrounding disconfirmed expectations is combined with prior feelings about the consumption experience. Irantaj and Huseynov (2018) also viewed customer satisfaction as the fulfilling response or optimistic outcome based on the event that the products or services bought by a customer meet his/her expectations.

Customers are satisfied and have the intentions to repurchase an item if the perceived performance of a particular product or service is better than the customer's expectations. The repetitive purchases behaviors make a customer an excellent external marketer and loyal to related e-store which makes the profitability of a particular company increase (Irantaj & Huseynov, 2018). Satisfaction is achieved when customers conduct perceived evaluations based on their needs, wants, and expectations. Satisfaction is a key aspect in determining the success of the market construct execution. Satisfied customers are expected to make repeated and continuous purchases if the service provider reached or exceeded their expectations (Hidayat et al., 2016).

### **Trust**

Customer trust is understood as the beliefs held by an online consumer regarding specific attributes of the e-supplier and the possible behaviors of the e-supplier in the future (Eid, 2011). Nguyen (2014) viewed trust as the willingness to take any risk in any type of relationships that are based on the positive expectation one has for another for any future actions. Brilliant and Achyar (2013) indicated that trust is the belief of a party that another party will carry out transactions according to the expectations of the prior party in uncertain circumstances. Customer trust in e-commerce is the willingness of a customer to trust and believe in an e-commerce website.

Trust encourages online purchases and significantly influences customer attitudes towards purchasing from e-retailers. Consumer trust encourages loyalty in the purchase decisions that contributes to the ongoing process of continuing and maintaining a valued and important relationship (Eid, 2011). Trust is an important element in an online business environment where buyers and sellers are not able to make face to face interactions. In the business industry, trust is perceived as the belief or expectation of a consumer that a seller or vendor will keep his words or promises and that no

harm will be done against the consumer in future (Nguyen, 2014). Vega (2015) depicted that trust from a business perspective arises when a buyer has to accept vulnerability based on the beliefs that transactions of the vendor align with the expectation of trust in a transaction in relation to the competition, integrity, and benevolence of the vendor. If customers trust a website, they will depict commitment to use goods or services from an e-commerce website in the future.

### **User-interface Quality and Customer Trust and Satisfaction**

According to Brilliant and Achyar (2013), the user interface is the tangible aspect of e-commerce websites which depicts the interaction channel between customers and electronic service providers. User interface quality includes the website design that consists of organization and search ability and the ease of navigation. User-interface depicts the order that exists in an e-commerce website and also portrays the physical evidence of the service provider's competence (Brilliant & Achyar, 2013; Hidayat et al. 2016). Irantaj and Huseynov (2018) indicated that website design constitutes of the attributes in a website that depicts attractive and creative design offering customers simple search paths, uncluttered screens, appropriate content, and fast presentations that allows easier interaction between sellers and buyers. A good user interface saves customers from using much time to find products and minimizes mismatch of client search.

Brilliant and Achyar (2013) conducted a quantitative study to examine the determinants and their effect on satisfaction and trust among Indonesia e-commerce sites where they found out that user-interface quality does not have an effect on customer trust and satisfaction with regards to e-commerce sites. Hidayat et al. (2016) conducted a quantitative study to examine the determinants and impact of customer satisfaction and trust of e-commerce sites. The researchers found out that user-interface quality had a positive effect on customer trust and satisfaction. Irantaj and Huseynov (2018) conducted a quantitative study in Iran where they found out that website design had a positive effect on consumer satisfaction in the e-commerce platform. A quantitative study conducted by Vega (2015) found out that there was a significant difference between website quality and customer trust. Hidayanto, Herbowo, Budi, and Sucahyo (2014) from their quantitative study indicated that there was a significant positive influence between website quality and the trust in using e-commerce.

### **Information Quality and Customer Trust and Satisfaction**

Information quality is viewed as the customer's perception of the quality of product information that is available on e-commerce websites. Information quality depicts the relevance, usefulness of the product information available in e-commerce sites (Brilliant & Achyar, 2013). Brilliant and Achyar (2013) conducted a study and found out that information quality did not influence customer satisfaction but significantly influenced customer trust of e-commerce websites. Hidayat et al. (2016) through their quantitative study found out that information quality had a positive influence on customer satisfaction and trust with e-commerce websites. Vipushan and Janathanan (2018) conducted a quantitative study to examine the impact of service quality on customer satisfaction with e-commerce in Srilanka where the service quality was based on web design, information quality, and trust. The findings from the study indicated that information quality had a positive impact on customer satisfaction. The information quality shapes the consumer decisions to purchase online and significantly influences their satisfaction based on a well-documented website. Lin, Wu, and Chang (2011) examined important factors and their impact on customer satisfaction with e-commerce in Taiwan where they found information quality has a positive effect on customer satisfaction with e-commerce. Similarly, a study conducted in Nepal by Sharma and Lijuan (2014) to determine the effects of e-commerce service quality on customer satisfaction with e-commerce revealed that information quality positively contributed to customer satisfaction.

### **Privacy and Security and Customer Trust and Satisfaction**

Customers are always concerned about the security of e-commerce websites that reflects the reliability of the payment method, data storage, and data transmission. Customers are always concerned with their private information being accessed by third parties and they believe that their information will not be viewed and used by other parties. Privacy is perceived as the disclosure and storage of private information by third parties (Brilliant & Achyar, 2013).

Brilliant and Achyar (2013) conducted a quantitative study whereby their findings did not show a significant relationship between privacy and security and customer trust and satisfaction of e-commerce sites. Hidayat et al. (2016) conducted a study in Indonesia that revealed that security and privacy had a positive influence on customer satisfaction and trust. Website reliability and safe from invasion from breaches increase the propensity to trust and makes clients more satisfied with the site. Vega (2015) also conducted a quantitative study that revealed a significant difference between security and privacy and customer trust. Hidayanto et al. (2014) conducted a quantitative study in Indonesia that depicted a significant relationship between privacy and security and customer satisfaction.

### **Customer Service and Customer Satisfaction and Trust**

Customer service is defined by the quality of a company representatives' knowledge to respond to customer queries and questions. The company's representatives are expected to explicitly describe the costs associated with different products and provide adequate support to clients that navigate through the website (Hidayat et al., 2016). Hidayat et al. (2016) through a quantitative study conducted in Indonesia found that customer service significantly influenced customer trust and satisfaction with e-commerce sites. Sharma (2017) conducted a quantitative study in Nepal to examine the relationship between satisfaction, loyalty, and service quality among e-commerce users. The findings indicated that customer service had a positive impact on customer satisfaction. The services such as technical, functional, temporal, and spatial dimensions given to a customer significantly increase customer satisfaction with e-commerce websites. Heri (2017) conducted a study to examine the role of service quality on customer satisfaction and customer trust. The findings from this study revealed that the service quality of e-commerce websites had a significant positive relationship with customer satisfaction. Service quality was defined by responsiveness that depicted the ability to help customers and provide services quickly, reliability of services and rendering the services accurately, assurance through polite and skillful support of customers, and empathy. The research findings indicated that providing customers with the appropriate support while making their purchases online is positively linked with the increase in customer satisfaction (Heri, 2017).

### **Trends in E-commerce and Online Shopping Behaviors**

E-commerce and online shopping have been a trending issue in the marketing environment. There has been a rise in the electronic interactivity with consumers in the form of FAQs and emails. E-commerce has special features that guide consumers effectively to inquire about their shipments, ask about the prices, payments, products, and policies (Shanthi & Kannaiah 2015). E-commerce systems have been developed to provide sufficient information about a product to consumers such as merits and demerits of products that were absent from the traditional marketing or purchases methods. E-commerce service providers have made the payment methods easier for consumers by embedding online payments and merchants to e-commerce sites to make it easy to complete transactions (Shanthi & Kannaiah 2015). The use of e-commerce has enabled markets to gather consumer attitudes regarding various products through obtaining consumer reviews from e-commerce sites. The e-commerce platforms have features that enable consumers to create individual profiles that enable them to

access their accounts conveniently at any time or place. E-commerce service providers have their own delivery agents who aim to deliver products and services to consumer's doorstep (Jukariya & Singhvi 2018).

E-commerce service providers are making it easier for online consumers by developing applications to conduct their purchases. The user of e-commerce applications enables consumers to make online purchases directly from their mobile phones (Akram, Hui, Khan, Yan & Akram, 2018). The payment methods used by consumers to pay e-commerce products has advanced by including credit cards, debit cards, money gram, and online money transfer merchants. E-commerce marketers aim to protect their consumers from security breaching by developing quality applications and using security measures to protect their consumers from vulnerability. The e-commerce systems have influenced many customers to shop online due to the variety, time, and convenience from e-commerce sites (Vaidya & Vaidya 2017).

## **RESEARCH METHODOLOGY**

### **Introduction**

The research methodology is the framework or a systematic process of undertaking research by employing distinct methods and techniques. The research method will describe the framework and procedure adopted to answer key research questions. The research methodology entails the research design, population and sampling, data collection procedures, and data analysis techniques.

### **Research Design**

The research design is the strategy or technique used by researchers to describe the procedure of conducting research. The research strategy used in this study is the quantitative method, which focuses on data collection from a large population and analyzes data without considering respondents emotions and feelings or environmental context. The quantitative design encourages objectivity in the research process that enables the researcher to describe the data rather than to interpret the data (Rahi, 2017). The quantitative method is appropriate for conducting this study as it allows for the collection of numerical data and employs statistical methods to test the hypotheses. In addition, the study hypotheses were derived from the review of literature by evaluating various empirical studies (Castellan, 2010). Particularly, the survey design was used to guide the data collection process. Survey method was chosen as the strategy of the study since it allows for the collection of information from a sample of individuals based on their responses to questions. Survey methods encourage the recruitment of instruments such as questionnaires that are used to collect large information to describe human behavior (Ponto, 2015). Particularly, the quantitative survey method will be employed to examine the determinants of e-commerce customer trust and satisfaction.

### **Population and Sampling**

The population is the whole group of items or units a researcher wishes to study. The population may include objects or people. The population will include online customers from various e-stores located in the Afghanistan. Sampling is the process that involves selecting a segment of the population for investigation (Rahi, 2017). The sample includes a subset of the population. The sample will be selected using stratified random sampling that encourages dividing the population into strata (or subgroups) and a sample is randomly taken from each subgroup (Singh & Masuku, 2017). The sample taken from each subgroup maybe selected using simple random sampling. The sample significantly depends on the statistical power (Singh & Masuku, 2017). The power analysis will be used to select the sample size. According to McCrum-Gardner (2010), the sample size depends on the power, effect size, and significance level. A statistical power of

0.95, an effect size of 0.3, and a significance level of 0.05 will be chosen, which gives a sample size of 110 customers. The stratified random sampling will involve selecting a proportionate sample from the strata. The sampling process will involve selecting five e-commerce sites or stores where the samples will be equally allocated. Each stratum will have 22 customers to be sampled.

### Data Collection

Questionnaires will be used as the key instruments to collect the data. Questionnaires are selected as they are easier and quicker to administer. Particularly, web-based questionnaires will be employed to collect data. Web-based questionnaires are used to collect data since they improve data quality. Respondents can be alerted when they enter implausible or incomplete answers (van Gelder, Bretveld & Roeleveld, 2010). Data is entered electronically with minimal errors. The respondents will be identified through customer review/feedback or from social media based on e-commerce social network pages. The researcher will request the respondent's emails and ensure anonymity to the respondents. The researcher will provide a detailed explanation for gathering the information and also link the process with the purpose of the study. The researcher will invite potential respondents to participate in the study by also including informed consent depicting their anonymity and confidentiality. Survey monkey tool will be used as the platform to administer the questionnaire. The questionnaire will include close-ended questions to capture key variables and answer the research questions. The key variables of the study are privacy and security, information quality, user-interface quality, and customer service/support which are the independent variables. The dependents variable will be customer trust and customer satisfaction.

### Data Analysis

The data analysis procedures will include both descriptive and inferential statistics. The descriptive statistics will include the mean and standard deviations for continuous variables. For categorical variables, frequency distributions and graphical representations will be employed to describe the data. The inferential statistics will involve the use of regression analysis. The regression analysis will be used to answer the research questions as it encourages analyzing the effect of independent on dependent variables. Regression analysis also will encourage determining the cause and effect relationship (Gogtay, Deshpande & Tharte, 2017). The inferences will be made at 5% level of significance.

### Internal Consistency Test or Cronbach's Alpha

Before the data is processed for further analysis, it is important to confirm if the items distributed for data collection are internally consistent or not. Thus, the researcher implemented Cronbach's Alpha test for the items to find out their internal consistency at 95%. Below table shows the overall consistency of the research questions:

**Table 1**

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.887	.888	31

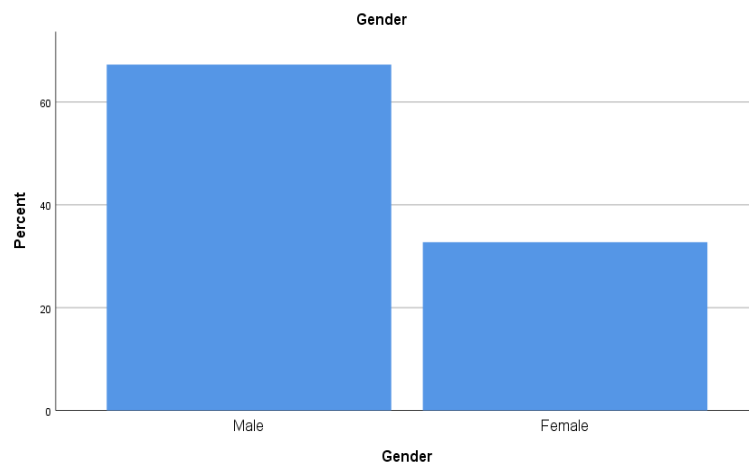
The alpha coefficient for the 31 items is .887, suggesting that the items have relatively high internal consistency. (Note that a reliability coefficient of .70 or higher is considered "acceptable" in most social science research situations.)



From that alpha coefficient, Information Quality alpha is .947, User-Interface Quality alpha is 0.894, Service Quality alpha is .911, Perceived Security alpha is .831, Perceived Privacy alpha is .896, Customer Satisfaction alpha is .867, and Customer Trust alpha is .942 which gives relatively high internal consistency of the items distributed.

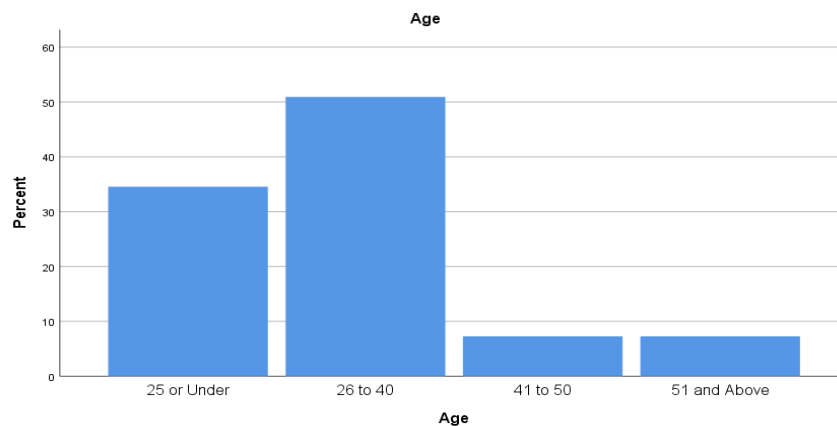
### Demographics

Gender, age and education were queried to analyze the demographic characteristics of the sample population. Simple frequency analysis revealed that 67% of the respondents were males and 33% were females. Figure 1 shows the sample gender distribution. Figure 2 shows the age group percentage of the sample. Figure 3 shows the education percentage of the sample.



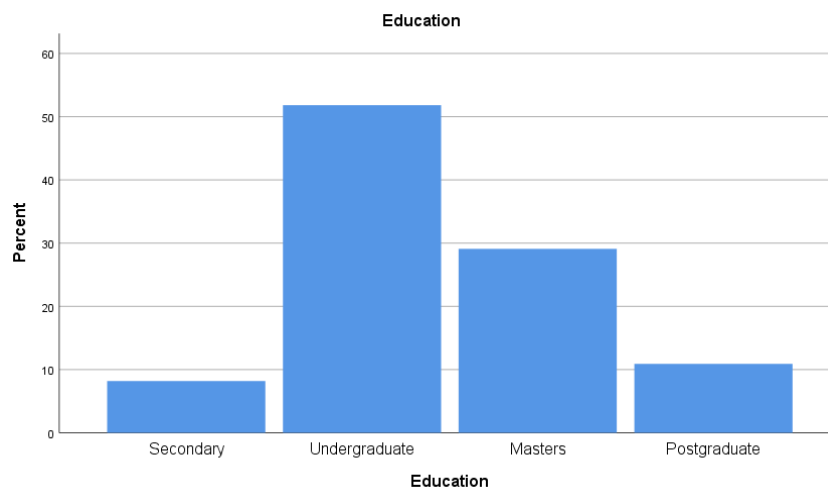
Mean = 1.33, SD = 0.471, N = 110

**Figure 1: Gender Distribution**



Mean = 1.87, SD = 0.836, N = 110

**Figure 2: Age Group Percentage**



Mean = 2.43, SD = 0.795, N = 110

**Figure 3: Education Percentage**

### Frequency Distributions and Graphical Representations

#### Information Quality

From the total sample of 110 distributed and data collected, 66 of the respondents agreed and 44 of the respondents have strongly agreed “Mean = 4.40, SD = 0.492, N = 110” that the information on the Web site facilitates buying the products or services that it sells or markets.

From the total sample of 110 distributed and data collected, 61 of the respondents agreed and 49 of the respondents have strongly agreed “Mean = 4.45, SD = 0.499, N = 110” that the Web site does necessarily have to provide the up-to-date products and services information.

From the total sample of 110 distributed and data collected, 66 of the respondents agreed and 44 of the respondents have strongly agreed “Mean = 4.40, SD = 0.492, N = 110” that the Web site provides the relevant the products/services information.

From the total sample of 110 distributed and data collected, 67 of the respondents agreed and 43 of the respondents have strongly agreed “Mean = 4.39, SD = 0.490, N = 110” that it is easy to complete the transaction on the Web site.

From the total sample of 110 distributed and data collected, 71 of the respondents agreed and 39 of the respondents have strongly agreed “Mean = 4.35, SD = 0.481, N = 110” that the Web site presents information that is an easy to understand.

#### User-Interface Quality

From the total sample of 110 distributed and data collected, 57 of the respondents agreed and 53 of the respondents have strongly agreed “Mean = 4.48, SD = 0.502, N = 110 “ that the Web site is easy to use.

From the total sample of 110 distributed and data collected, 65 of the respondents agreed and 45 of the respondents have strongly agreed “Mean = 4.41, SD = 0.494, N = 110” that the information on the Web site is not

attractively displayed.

From the total sample of 110 distributed and data collected, 46 of the respondents agreed and 64 of the respondents have strongly agreed “Mean = 4.58, SD = 0.496, N = 110” that the Web site is visually appealing.

From the total sample of 110 distributed and data collected, 62 of the respondents agreed and 48 of the respondents have strongly agreed “Mean = 4.44, SD = 0.498, N = 110 “ that the Web site does not increase my search effectiveness.

### **Service Quality**

From the total sample of 110 distributed and data collected, 70 of the respondents agreed and 40 of the respondents have strongly agreed “Mean = 4.36, SD = 0.483, N = 110” that the website is dependable in handling their service problems.

From the total sample of 110 distributed and data collected, 53 of the respondents agreed and 57 of the respondents have strongly agreed “Mean = 4.52, SD = 0.502, N = 110 “ that the website delivers prompt service to them.

From the total sample of 110 distributed and data collected, 58 of the respondents agreed and 52 of the respondents have strongly agreed “Mean = 4.47, SD = 0.502, N = 110 “ that the website has the readiness to respond to their requests.

From the total sample of 110 distributed and data collected, 56 of the respondents agreed and 54 of the respondents have strongly agreed “Mean = 4.49, SD = 0.502, N = 110” that the website has staff that is consistently courteous.

### **Perceived Security**

From the total sample of 110 distributed and data collected, 64 of the respondents agreed and 46 of the respondents have strongly agreed “Mean = 4.42, SD = 0.496, N = 110” that the Web site has mechanism to ensure the safe transmission of its users' information.

From the total sample of 110 distributed and data collected, 59 of the respondents agreed and 51 of the respondents have strongly agreed “Mean = 4.46, SD = 0.501, N = 110” that the Web site has sufficient technical capacity to ensure that the data they send cannot be modified by hackers.

From the total sample of 110 distributed and data collected, 65 of the respondents agreed and 45 of the respondents have strongly agreed “Mean = 4.41, SD = 0.494, N = 110” that purchasing on the Web site will not cause financial risk.

From the total sample of 110 distributed and data collected, 59 of the respondents agreed and 49 of the respondents have strongly agreed that the electronic payment on the Web site is safe. 2 respondents remain neutral to respond “Mean = 4.43, SD = 0.533, N = 110”.

### **Perceived Privacy**

From the total sample of 110 distributed and data collected, 64 of the respondents agreed and 46 of the respondents have strongly agreed “Mean = 4.42, SD = 0.496, N = 110” that the Web site abides by personal data protection laws.

From the total sample of 110 distributed and data collected, 67 of the respondents agreed and 43 of the respondents have strongly agreed “Mean = 4.39, SD = 0.490, N = 110” that the Web site only collects user's personal data that are necessary for its activity.

From the total sample of 110 distributed and data collected, 70 of the respondents agreed and 40 of the respondents have strongly agreed “Mean = 4.36, SD = 0.483, N = 110” that the Web site does not provide my personal information to others without their consent.

From the total sample of 110 distributed and data collected, 69 of the respondents agreed and 40 of the respondents have strongly agreed that they feel safe when sending their personal information to the Web site. One respondent did remain neutral and did not provide any response “Mean = 4.35, SD = 0.499, N = 110”.

From the total sample of 110 distributed and data collected, 49 of the respondents agreed and 61 of the respondents have strongly agreed “Mean = 4.55, SD = 0.499, N = 110” that the Web site shows concern for privacy of its users.

## REGRESSION ANALYSIS

In order to find out if the website content quality determines e-commerce consumer trust and satisfaction, the researcher used SPSS for regression analysis to find out the significance level of the independent variable which is information quality; and dependent variable which is Customer Trust and Satisfaction.

**Table 2**

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.613	1	.613	5.676	.019 <sup>b</sup>
	Residual	11.662	108	.108		
	<b>Total</b>	<b>12.275</b>	<b>109</b>			
a. Dependent Variable: Customer Trust and Satisfaction						
b. Predictors: (Constant), Information Quality						

The above ANOVA table indicates that  $F(1,108) = 5.676$ , and  $p = 0.029$  which is less than 0.05; thus, we accept that Information Quality determine e-commerce consumer trust and satisfaction.

**Table 3**

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.223 <sup>a</sup>	.050	.041	.329
a. Predictors: (Constant), Information Quality				
b. Dependent Variable: Customer Trust and Satisfaction				

The model summary indicates that 4.1% of the content quality determines e-commerce consumer trust and satisfaction.

**Table 4**

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	3.745	.312		11.992	.000	3.126	4.364
	Information Quality	.168	.071	.223	2.383	.019	.028	.308
a. Dependent Variable: Customer Trust and Satisfaction								

As per above Coefficients table the equation of the line for using content quality to determine e-commerce consumer trust and satisfaction would be  $y=0.168x+3.745$ . The slop of information quality is significant as we can see from above table that  $t=2.383$  with a significance level of 0.019 which is less than 0.05.

In order to find out if the user-interface quality influence e-commerce consumer trust and satisfaction, the SPSS for regression analysis results are shown in below table:

**Table 5**

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.051	1	.051	.449	.504 <sup>b</sup>
	Residual	12.224	108	.113		
	<b>Total</b>	<b>12.275</b>	<b>109</b>			
a. Dependent Variable: Customer Trust and Satisfaction						
b. Predictors: (Constant), User-Interface Quality						

The above ANOVA table indicates that  $F(1,108)= 0.449$ ,  $p=0.504$  which is more than 0.05; thus, we reject that user-interface quality influence e-commerce consumer trust and satisfaction.

In order to find out if security and privacy have an effect on e-commerce consumer trust and satisfaction, the SPSS for regression analysis results are shown in below table:

**Table 6**

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.512	1	.512	4.696	.032 <sup>b</sup>
	Residual	11.764	108	.109		
	<b>Total</b>	<b>12.275</b>	<b>109</b>			
a. Dependent Variable: Customer Trust and Satisfaction						
b. Predictors: (Constant), Service Quality						

The above ANOVA table indicates that  $F(1,108)= 4.696$ , and  $p=0.032$  which is less than 0.05; thus, we accept that security and privacy have an affect on e-commerce consumer trust and satisfaction.

**Table 7**

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.204 <sup>a</sup>	.042	.033	.330
a. Predictors: (Constant), Service Quality				
b. Dependent Variable: Customer Trust and Satisfaction				

The model summary indicates that 3.3% of the security and privacy have an affect on e-commerce consumer trust and satisfaction.

Table 8

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	3.793	.321		11.825	.000	3.157	4.429
	Service Quality	.155	.072	.204	2.167	.032	.013	.297

a. Dependent Variable: Customer Trust and Satisfaction

As per above Coefficients table the equation of the line for using security and privacy to determine e-commerce consumer trust and satisfaction would be  $y=0.155x+3.793$ . The slop of security and privacy is significant as we can see from above table that  $t=2.617$  with a significance level of 0.032 which is less than 0.05.

In order to find out if Perceived Security influences e-commerce consumer trust and satisfaction, the SPSS for regression analysis results are shown in below table:

Table 9

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.210	1	1.210	11.812	.001 <sup>b</sup>
	Residual	11.065	108	.102		
	<b>Total</b>	<b>12.275</b>	<b>109</b>			

a. Dependent Variable: Customer Trust and Satisfaction  
b. Predictors: (Constant), Perceived Security

The above ANOVA table indicates that  $F(1,108)= 11.812$ , and  $p=0.001$  which is less than 0.05; thus, we accept that Perceived Security influences e-commerce consumer trust and satisfaction.

Table 10

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.314 <sup>a</sup>	.099	.090	.320

a. Predictors: (Constant), Perceived Security  
b. Dependent Variable: Customer Trust and Satisfaction

The model summary indicates that 9% of Perceived Security has an affect on e-commerce consumer trust and satisfaction.

Table 11

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	3.353	.331		10.132	.000	2.697	4.008
	Perceived Security	.256	.074	.314	3.437	.001	.108	.403

a. Dependent Variable: Customer Trust and Satisfaction

As per above Coefficients table the equation of the line for using Perceived Security to determine e-commerce consumer trust and satisfaction would be  $y=0.256x+3.353$ . The slop of Perceived Security is significant as we can see from above table that  $t=3.437$  with a significance level of 0.001 which is less than 0.05.

In order to find out if Perceived Privacy influences e-commerce consumer trust and satisfaction, the SPSS for regression analysis results are shown in below table:

**Table 12**

ANOVA <sup>a</sup>						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.188	1	2.188	23.428	.000 <sup>b</sup>
	Residual	10.087	108	.093		
	<b>Total</b>	<b>12.275</b>	<b>109</b>			
a. Dependent Variable: Customer Trust and Satisfaction						
b. Predictors: (Constant), Perceived Privacy						

The above ANOVA table indicates that  $F(1,108)= 23.428$ , and  $p<0.001$  which is less than 0.05; thus, we accept that Perceived Privacy influences e-commerce consumer trust and satisfaction.

**Table 13**

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.422 <sup>a</sup>	.178	.171	.306
a. Predictors: (Constant), Perceived Privacy				
b. Dependent Variable: Customer Trust and Satisfaction				

The model summary indicates that Perceived Privacy has 17.1% affect on e-commerce consumer trust and satisfaction.

**Table 14**

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2.976	.313		9.500	.000	2.355	3.596
	Perceived Privacy	.342	.071	.422	4.840	.000	.202	.482
a. Dependent Variable: Customer Trust and Satisfaction								

As per above Coefficients table the equation of the line for using Perceived Privacy to determine e-commerce consumer trust and satisfaction would be  $y=0.342x+2.976$ . The slop of Perceived Privacy is significant as we can see from above table that  $t=4.840$  with a significance level of  $p < 0.001$  which is less than 0.05.

In order to find out if Service Quality influences e-commerce consumer trust and satisfaction, the SPSS for regression analysis results are shown in below table:

Table 15

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.512	1	.512	4.696	.032 <sup>b</sup>
	Residual	11.764	108	.109		
	<b>Total</b>	<b>12.275</b>	<b>109</b>			
a. Dependent Variable: Customer Trust and Satisfaction						
b. Predictors: (Constant), Service Quality						

The above ANOVA table indicates that  $F(1,108) = 4.696$ , and  $p = 0.032$  which is less than 0.05; thus, we accept that service quality affects e-commerce consumer trust and satisfaction.

Table 16

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.204 <sup>a</sup>	.042	.033	.330
a. Predictors: (Constant), Service Quality				
b. Dependent Variable: Customer Trust and Satisfaction				

The model summary indicates that service quality has 3.3% affect on e-commerce consumer trust and satisfaction.

Table 17

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	3.793	.321		11.825	.000	3.157	4.429
	Service Quality	.155	.072	.204	2.167	.032	.013	.297
a. Dependent Variable: Customer Trust and Satisfaction								

As per above Coefficients table the equation of the line for using service quality to determine e-commerce consumer trust and satisfaction would be  $y = 0.155x + 3.793$ . The slop of service quality is significant as we can see from above table that  $t = 2.167$  with significance level of  $p = 0.032$  which is less than 0.05.

## CONCLUSIONS

Based on above analysis, we can summarize below points:

- Information Quality determines e-commerce consumer trust and satisfaction.
- User-interface quality does not influence e-commerce consumer trust and satisfaction.
- Security and privacy have an affect on e-commerce consumer trust and satisfaction.
- Perceived Security influences e-commerce consumer trust and satisfaction.
- Perceived Privacy influences e-commerce consumer trust and satisfaction.
- Service Quality influences e-commerce consumer trust and satisfaction.



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